

NOVEL INVERTASE INHIBITOR AND METHODS OF USE

ABSTRACT OF THE DISCLOSURE

5 Methods and compositions for increasing yield in plants, particularly seed plants,
are provided. The compositions comprise novel nucleic acid molecules encoding
invertase inhibitors, antisense nucleotides corresponding to invertase inhibitors, and
variants and fragments thereof. Such compositions find use in methods to modulate
invertase activity in plants. The compositions are also useful in methods to modulate
10 kernel development and for protecting plants against the harmful/detrimental effects of
stress and adverse environmental conditions. The nucleotide sequences may be provided
in constructs for temporal, developmental, and tissue preference.

Transformed plants, plant cells, tissues, and seeds are additionally provided.